

What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polynucleotide fragment of SEQ ID NO:1 or a polynucleotide fragment of the cDNA sequence included in ATCC Deposit No: 209666;
- (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (c) a polynucleotide encoding conserved polypeptide domain I of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (d) a polynucleotide encoding conserved polypeptide domain II of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (e) a polynucleotide encoding conserved polypeptide domain III of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (f) a polynucleotide encoding conserved polypeptide domain IV of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (g) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666;
- (h) a polynucleotide encoding a polypeptide of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209666 having biological activity;
- (i) a polynucleotide which is a variant of SEQ ID NO:1;
- (j) a polynucleotide which is an allelic variant of SEQ ID NO:1;
- (k) a polynucleotide which encodes a species homologue of the polypeptide whose amino acid sequence is shown in SEQ ID NO:2;
- (l) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j) or (k), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues; and
- (m) a polynucleotide which is the complement of any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k) or (m).

2. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polynucleotide fragment of SEQ ID NO:28;
- (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:28;
- (c) a polynucleotide encoding conserved polypeptide domain I of SEQ ID NO:28;
- (d) a polynucleotide encoding conserved polypeptide domain II of SEQ ID NO:28;
- (e) a polynucleotide encoding conserved polypeptide domain III of SEQ ID NO:28;
- (f) a polynucleotide encoding conserved polypeptide domain IV of SEQ ID NO:28;
- (g) a polynucleotide encoding conserved polypeptide domain V of SEQ ID NO:28;
- (h) a polynucleotide encoding conserved polypeptide domain VI of SEQ ID NO:28;
- (i) a polynucleotide encoding conserved polypeptide domain VII of SEQ ID NO:28;
- (j) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:28;
- (k) a polynucleotide encoding a polypeptide of SEQ ID NO:28 having biological activity;
- (l) a polynucleotide which is a variant of SEQ ID NO:28;
- (m) a polynucleotide which is an allelic variant of SEQ ID NO:28;
- (n) a polynucleotide which encodes a species homologue of the polypeptide whose amino acid sequence is shown in SEQ ID NO:28;
- (o) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k),

(l), (m) or (n), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues; and

(p) a polynucleotide which is the complement of any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n) or (o).

3. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polynucleotide fragment of SEQ ID NO:3 or a polynucleotide fragment of the cDNA sequence included in ATCC Deposit No: 209665;
- (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (c) a polynucleotide encoding conserved polypeptide domain I of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (d) a polynucleotide encoding conserved polypeptide domain II of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (e) a polynucleotide encoding conserved polypeptide domain III of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (f) a polynucleotide encoding conserved polypeptide domain IV of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (g) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665;
- (h) a polynucleotide encoding a polypeptide of SEQ ID NO:4 or the cDNA sequence included in ATCC Deposit No: 209665 having biological activity;
- (i) a polynucleotide which is a variant of SEQ ID NO:3;
- (j) a polynucleotide which is an allelic variant of SEQ ID NO:3;
- (k) a polynucleotide which encodes a species homologue of the polypeptide whose amino acid sequence is shown in SEQ ID NO:4;

(l) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j) or (k), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues; and

(m) a polynucleotide which is the complement of any one of the polynucleotides specified in (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k) or (l).

4. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding a mature form or a secreted protein.

5. The isolated nucleic acid molecule of claim 2, wherein the polynucleotide fragment comprises a nucleotide sequence encoding a mature form or a secreted protein.

6. The isolated nucleic acid molecule of claim 3, wherein the polynucleotide fragment comprises a nucleotide sequence encoding a mature form or a secreted protein.

7. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding the sequence identified as SEQ ID NO:2 or the coding sequence included in ATCC Deposit No: 209666.

8. The isolated nucleic acid molecule of claim 2, wherein the polynucleotide fragment comprises a nucleotide sequence encoding the sequence identified as SEQ ID NO:28.

9. The isolated nucleic acid molecule of claim 3, wherein the polynucleotide fragment comprises a nucleotide sequence encoding the sequence identified as SEQ ID NO:4 or the coding sequence included in ATCC Deposit No: 209665.

10. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises the entire nucleotide sequence of SEQ ID NO:1 or the cDNA sequence included in ATCC Deposit No: 209666.
11. The isolated nucleic acid molecule of claim 2, wherein the polynucleotide fragment comprises the entire nucleotide sequence of SEQ ID NO:28.
12. The isolated nucleic acid molecule of claim 3, wherein the polynucleotide fragment comprises the entire nucleotide sequence of SEQ ID NO:3 or the cDNA sequence included in ATCC Deposit No: 209665.
13. The isolated nucleic acid molecule of claim 5, wherein the nucleotide sequence comprises sequential nucleotide deletions from either the C-terminus or the N-terminus.
14. The isolated nucleic acid molecule of claim 8, wherein the nucleotide sequence comprises sequential nucleotide deletions from either the C-terminus or the N-terminus.
15. A recombinant vector comprising the isolated nucleic acid molecule of claim 2.
16. A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 1.
17. A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 2.
18. A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 3.

19. A recombinant host cell produced by the method of claim 16.
20. A recombinant host cell produced by the method of claim 17.
21. A recombinant host cell produced by the method of claim 18.
22. The recombinant host cell of claim 19 comprising vector sequences.
23. The recombinant host cell of claim 20 comprising vector sequences.
24. The recombinant host cell of claim 21 comprising vector sequences.
25. An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) a polypeptide fragment of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209666;
 - (b) a polypeptide fragment of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209666 having biological activity;
 - (c) a polypeptide domain of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209666;
 - (d) a polypeptide epitope of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209666;
 - (e) a mature form of a secreted protein;
 - (f) a full length secreted protein;
 - (g) a variant of SEQ ID NO:2;
 - (h) an allelic variant of SEQ ID NO:2; and
 - (i) a species homologue of the SEQ ID NO:2.
26. An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:
- (a) a polypeptide fragment of SEQ ID NO:29;

(b) a polypeptide fragment of SEQ ID NO:29 having biological activity;

- (c) a polypeptide domain of SEQ ID NO:29;
- (d) a polypeptide epitope of SEQ ID NO:29;
- (e) a mature form of a secreted protein of SEQ ID NO:29;
- (f) a full length secreted protein of SEQ ID NO:29;
- (g) a variant of SEQ ID NO:29;
- (h) an allelic variant of SEQ ID NO:29; and
- (i) a species homologue of the SEQ ID NO:29.

27. An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polypeptide fragment of SEQ ID NO:4 or the encoded sequence included in ATCC Deposit No. 209665;
- (b) a polypeptide fragment of SEQ ID NO:4 or the encoded sequence included in ATCC Deposit No. 209665 having biological activity;
- (c) a polypeptide domain of SEQ ID NO:4 or the encoded sequence included in ATCC Deposit No. 209665;
- (d) a polypeptide epitope of SEQ ID NO:4 or the encoded sequence included in ATCC Deposit No. 209665;
- (e) a mature form of a secreted protein;
- (f) a full length secreted protein;
- (g) a variant of SEQ ID NO:4;
- (h) an allelic variant of SEQ ID NO:4; and
- (i) a species homologue of the SEQ ID NO:4.

28. The isolated polypeptide of claim 26, wherein the mature form or the full length secreted protein comprises sequential amino acid deletions from either the C-terminus or the N-terminus.

29. An isolated antibody that binds specifically to the isolated polypeptide of claim 26.
30. A recombinant host cell that expresses the isolated polypeptide of claim 25.
31. A recombinant host cell that expresses the isolated polypeptide of claim 26.
32. A recombinant host cell that expresses the isolated polypeptide of claim 27.
33. A method of making an isolated polypeptide comprising:
(a) culturing the recombinant host cell of claim 30 under conditions such that said polypeptide is expressed; and
(b) recovering said polypeptide.
34. A method of making an isolated polypeptide comprising:
(a) culturing the recombinant host cell of claim 31 under conditions such that said polypeptide is expressed; and
(b) recovering said polypeptide.
35. A method of making an isolated polypeptide comprising:
(a) culturing the recombinant host cell of claim 32 under conditions such that said polypeptide is expressed; and
(b) recovering said polypeptide.
36. The polypeptide produced by claim 34.

37. A method for preventing, treating, or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 26.

38. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of a secreted protein comprising:

- (a) determining the presence or absence of a mutation in the polynucleotide of claim 2;
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

39. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of a secreted protein comprising:

- (a) determining the presence or amount of expression of the polypeptide of claim 26 in a biological sample;
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

40. A method for identifying binding partner to the polypeptide of claim 26 comprising:

- (a) contacting the polypeptide of claim 26 with a binding partner; and
- (b) determining whether the binding partner effects an activity of the polypeptide.

41. The gene corresponding to the cDNA sequence of SEQ ID NO:1.

42. The gene corresponding to the cDNA sequence of SEQ ID NO:28.

43. The gene corresponding to the cDNA sequence of SEQ ID NO:3.

44. A method of identifying an activity in a biological assay, wherein the method comprises:

- (a) expressing SEQ ID NO:1 in a cell;
- (b) isolating the supernatant;
- (c) detecting an activity in a biological assay; and
- (d) identifying the protein in the supernatant having the activity.

45. A method of identifying an activity in a biological assay, wherein the method comprises:

- (a) expressing SEQ ID NO:28 in a cell;
- (b) isolating the supernatant;
- (c) detecting an activity in a biological assay; and
- (d) identifying the protein in the supernatant having the activity.

46. A method of identifying an activity in a biological assay, wherein the method comprises:

- (a) expressing SEQ ID NO:3 in a cell;
- (b) isolating the supernatant;
- (c) detecting an activity in a biological assay; and
- (d) identifying the protein in the supernatant having the activity.

47. The product produced by the method of claim 44.

48. The product produced by the method of claim 45.

49. The product produced by the method of claim 46.